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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,292	05/23/2000	Alireza Abaye	11470BAUS01U	3517

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EXAMINER	
LY, ANH VU H	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/577,292	ABAYE ET AL.	
	Examiner	Art Unit	
	Anh-Vu H. Ly	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-43,45-61 and 63-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-43,45-61 and 63-66* is/are rejected.

7)☒ Claim(s) *2,3,63 and 64* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 27, 2006 has been entered.

Claim Objections

2. Claims 2, 3, 63, and 64 are objected to because of the following informalities:

With respect to claims 2 and 3, in line 2, replace "resource" with --resources--.

With respect to claim 63, in line 2, "for establishing" should be deleted to obviate duplicated limitation.

With respect to claim 64, in line 2, a period should be inserted at the end of the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-10, 14-17, 19-41, 45-46, 48-61, and 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung et al (US Patent No. 6,515,964 B1) in view of Chen et al (US Patent No. 6,487,170 B1). Hereinafter, referred to as Cheung and Chen.

With respect to claims 1-2, 14-17, 31-33, 45-46, 60-61, and 63-65, Cheung discloses in Figs. 2, 5, and 6, a system for transporting voice signals over IP packet network 140 (links or bus), wherein the admission control gateway 100 receives a call request, which including the caller's identification information and the callee's identification information (receiving a call request to establish a call comprising an origination address for identifying an origination terminal and an identifier for identifying a destination terminal), from the first network 110, containing the call characteristic requirements (the call request operable for defining a throughput requirement).

Cheung does not disclose transmitting a throughput measurement request, the throughput measurement request causing a trace to propagate via a path between the origination terminal and the destination terminal. Chen discloses that in DiffServ framework, in order to establish a premium service flow, a request for premium service needs to traverse the entire path of the reservation from the ingress edge device to the egress edge device. Additionally, an affirmative admission decision needs to be received by the ingress edge device within a predetermined timeout interval (col. 8, lines 35-42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of sending the request with the desired level of service to all nodes along the path for resource reservation in Cheung's system, as suggested by Chen, to ensure that QoS will be provided for new incoming calls.

Cheung discloses (col. 5, line 65 – col. 6, line 4) that each gateway can also accumulate data parameters about the network and the current traffic, including network performance parameters (subset of one or more network resources such as total delay, packet loss, error rate, etc…) e.g., by polling every other gateway in the network and/or receiving data from network

components, such as routers. Hence, each, gateway is able to keep or access up-to-date network data parameters. This implies that network performance parameters are received, collected, monitored and, determined at the polling gateway from the polled gateways (in response to the trace, receiving information identifying one or more network resources on the path between the origination terminal and the destination terminal and monitoring one or more performance characteristics of the one or more network resources identified to generate a throughput measurement of the path).

Cheung discloses in Fig. 5 that the call is sent through the packet-switched network when the network performance characteristics match the quality requirements of the call. Herein, before the communications begin over the packet-switched network, a notification is sent to the caller indicating that the call is accepted (transmitting a call admission response to the origination terminal when the throughput measurement at least substantially matches the throughput requirement of the call request).

With respect to claims 3 and 34, Cheung discloses (col. 5, lines 3-12) that various call actions can be taken if the voice call can not be admitted to the packet switched network such as holding the voice call, sending the calling party a busy signal, providing the calling party the option of having the system call him or her back when the VoIP call can be admitted to the network, or rerouting the voice call over another network, such as a conventional circuit-switched network (selecting one or more network resources is based on the call admission response).

With respect to claims 4 and 35, Cheung discloses in Fig. 4, quality of service computer 320 for determining the network performance parameters (selecting one or more network resources is determined by usage policy of a policy server).

With respect to claims 5 and 36, Cheung discloses (col. 4, lines 26-30) that call quality requirements for the various performance parameters of the packet-switched network can be established to enable a higher quality of service for certain calls (throughput requirement relates to a perceptible quality of service).

With respect to claims 6 and 37, the limitation "throughput requirement is specified in a packet header" is inherent to Cheung. Cheung discloses (col. 8, lines 36-37 and Fig. 4) that the admission control gateway 300 receives the call from the initiator computer 310. From the illustration shown in Fig. 4, the communicated messages between the gateway and the computer must be in the form of packets and furthermore, each packet is known to comprise the header and payload portion. Wherein, header portion is known for carrying controlled information.

With respect to claims 7 and 38, Cheung discloses a system for admitting calls over IP network (Fig. 2). Cheung does not disclose that wherein the throughput requirement complies with RSVP. Chen discloses that RSVP was developed to foster growth of QoS enabled networks (col. 1, lines 36-38). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include RSVP in Cheung's system, as suggested by Chen, to ensure that QoS will be provided for new incoming calls.

With respect to claims 8 and 39, Cheung discloses a system for admitting calls over IP network (Fig. 2). Cheung does not disclose that wherein the throughput requirement complies with DiffServ protocol. Chen discloses that in DiffServ framework, in order to establish a premium service flow, a request for premium service needs to traverse the entire path of the reservation from the ingress edge device to the egress edge device. Additionally, an affirmative admission decision needs to be received by the ingress edge device within a predetermined timeout interval (col. 8, lines 35-42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of sending the request with the desired level of service to all nodes along the path for resource reservation in Cheung's system, as suggested by Chen, to ensure that QoS will be provided for new incoming calls.

With respect to claims 9 and 40, Cheung discloses a method and apparatus for dynamically controlling the admission of calls to a network, wherein call requests received at the gateway are containing call characteristic requirements. Cheung does not disclose throughput requirement complies with MPLS protocol. However, MPLS protocol is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include MPLS protocol in Cheung's system to reserve best paths.

With respect to claims 10 and 41, Cheung discloses a method and apparatus for dynamically controlling the admission of calls to a network, wherein call requests received at the gateway are determined whether the call is admitted or rejected. Cheung does not disclose that wherein call request complies with SIP. However, SIP is known in the art for initiating and/or

setting connections between two points in a network. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of sending call request in accordance to the Session Initiation Protocol in Cheung's system to set up a connection.

With respect to claims 19-21 and 48-50, Cheung discloses (col. 5, lines 3-12) that various call actions can be taken if the voice call can not be admitted to the packet switched network such as holding the voice call, sending the calling party a busy signal, providing the calling party the option of having the system call him or her back when the VoIP call can be admitted to the network, or rerouting the voice call over another network, such as a conventional circuit-switched network (selecting an alternative path when the throughput measurement does not substantially match the throughput requirement of the call request; wherein the alternative resource comprising a switched telephone network and further comprising a dedicated communications link interconnecting devices).

With respect to claims 22 and 51, Cheung discloses (col. 5, lines 3-12) that various call actions can be taken if the voice call can not be admitted to the packet switched network such as holding the voice call, sending the calling party a busy signal (transmitting an alternative resource call admission response when the throughput measurement does not substantially match the throughput requirement of the call request), providing the calling party the option of having the system call him or her back when the VoIP call can be admitted to the network, or rerouting the voice call over another network, such as a conventional circuit-switched network.

With respect to claims 23-25 and 52-54, Cheung discloses (col. 4, lines 14-17) that the state of a packet switched network can be indicated by a number of performance parameters, including total delay, mean and standard deviation for such delay, packet loss, error rate, etc ... (determining a condition of the network resource, wherein the determining including determining a delay in the throughput measurement in the network; wherein the determining including a percentage of packet loss in the network).

With respect to claims 26 and 55, Cheung discloses (col. 4, lines 14-17) that the state of a packet switched network can be indicated by a number of performance parameters, including total delay, mean and standard deviation for such delay, packet loss, error rate, etc ... (determining an expected quality of service based on the determined condition of the one or more network resources).

With respect to claims 27 and 56, Cheung discloses (col. 8, lines 7-12) a determination is made whether a call request is accepted or rejected (performing call admission control to accept or deny the call request).

With respect to claims 28 and 57, Cheung discloses (col. 8, lines 7-12) that the network characteristic parameters data are determined (wherein performing call admission control is based on usage of a link in the network).

With respect to claims 29 and 58, Cheung discloses in Fig. 2, a system for admitting call between a first telephone device 111 (first terminal), coupled to the first network 110, and a second telephone device 191 (second terminal), coupled to third network 190. Herein, telephone device 111 and first network are considered as first community, and telephone device 191 and third network are considered as second community. Wherein, first community and second community are connected via paths or links or channels of the IP network 140 (a link in the network for coupling the two communities).

Cheung discloses (col. 4, lines 14-17) that the state of a packet switched network (policy of the links of the IP network) can be indicated by a number of performance parameters, including total delay, mean and standard deviation for such delay, packet loss, error rate, etc ... (wherein performing call admission control includes performing call admission control based on a policy for the link between the communities).

With respect to claims 30 and 59, the limitation "bypassing the call admission control within at least one community" is inherent to Cheung. Since only one telephone device shows Fig. 2 for the purpose of illustration, if another telephone device couples to the first network 110, then two telephone devices can communicate via the first network 110 without the intervention of the admission control gateway.

4. Claims 11-12, 42-43, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung and Chen further in view of Lo et al (US Patent No. 6,798,786 B1). Hereinafter, referred to as Cheung, Chen, and Lo.

With respect to claims 11-12, 42-43, and 66, Cheung discloses (col. 4, lines 26-30) that call quality requirements for the various performance parameters of the packet-switched network can be established to enable a higher quality of service for certain calls (wherein the call request comprises a list of resource elements supported by the origination terminal). Cheung does not disclose ranking the resource elements according to a merit rating and selecting a resource element according to the merit rating for use by the origination terminal; wherein the selected resource element is a codec. Lo discloses that if two or more codecs are present in the candidate list, then the codecs are reordered by applying a merit-based codec ranking algorithm to rank the codecs in the candidate list in the descending metric order. The codec, packet size, and other resource element having the highest relative rank is selected (col. 8, lines 8-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include ranking algorithm and select the highest ranked resource element in Cheung's system, as suggested by Lo, to maximize user's efficiency.

5. Claims 18 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung and Chen further in view of Vargo et al (US Patent No. 6,356,545). Hereinafter, referred to as Cheung, Chen, and Vargo.

With respect to claims 18 and 47, Cheung discloses a method and apparatus for dynamically controlling the admission of calls to a network, wherein call requests received at the gateway are determined whether the call is admitted or rejected. Cheung does not disclose selecting one or more sizes of a data packet as candidates for carrying audio data in the requested call. Vargo discloses in Fig. 3, an apparatus for managing calls in a system including an

interface (NIC26) for receiving a call request to establish a call between two endpoints and a control unit (23 and 24) for processing the request and to control the selection of resource elements such as codec (col. 7, lines 27-35) or packet size (col. 7, lines 6-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of selecting one or more sizes of a data packet as candidates as specified in the requested call in Cheung's system, as suggested by Vargo, to accommodate quality of service of a call based on the usage or condition of the network.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Meepat et al (US Patent No. 6,904,017 B1) discloses method and apparatus to provide centralized call admission control and load balancing over a voice over IP network.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

avl

CHI PHAM
SUPERVISORY PATENT EXAMINER 6/26/07